



SEQUENCE LISTING

<110> Young, Karen K. Y.
Roche Molecular Systems, Inc.

<120> Compositions and Methods for Detecting Certain
Flaviviruses, Including Members of the Japanese
Encephalitis Virus Serogroup

<130> 022101-000230US

<140> US 10/815,480
<141> 2004-03-31

<150> US 60/459,491
<151> 2003-03-31

<150> US 60/552,454
<151> 2004-03-12

<150> US 60/555,530
<151> 2004-03-22

<160> 74

<170> PatentIn Ver. 2.1

<210> 1
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conserved sequence in 3' untranslated region of
the genomes of flaviviruses

<400> 1
gtaagccctc agaaccgtct cggaa

25

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<220>
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SEQ ID NO:1

<400> 2
ttccgagacg gttctgaggg cttac

25

<210> 3
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<220>
<223> Description of Artificial Sequence:Japanese
encephalitis virus serogroup Primer 1

<220>
<221> modified_base
<222> (8)
<223> n = t or absent

<400> 3
gwaasccnsy crramcysyy tcggrw

26

<210> 4
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:West Nile virus
Primer 1

<220>
<221> modified_base
<222> (8)
<223> n = t or absent

<400> 4
gtaagccnct cagaaccgyy tcggaa

26

<210> 5
<211> 26
<212> DNA
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<220>
<223> Description of Artificial Sequence:Japanese
encephalitis virus Primer 1

<220>
<221> modified_base
<222> (8)
<223> n = absent

<400> 5
gaaascnct crraacygtt tcggaa

26

<210> 6
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Murray Valley
encephalitis virus Primer 1

<400> 6
gaaagcctcc cagamccgtt tcggaa

26

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<210> 7
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Koutango virus
      Primer 1

<400> 7
gtaagccctc agaaccgtct cgcaa                                         25

<210> 8
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Example Primer
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<400> 8
gtaagccctc agaaccgtct cgcaa                                         25

<210> 9
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:region of
      conserved sequence in 3' untranslated region of
      the genomes of flaviviruses

<400> 9
tctcctagtc tatcccaggt gtcaa                                         25

<210> 10
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complement to
      SEQ ID NO:9

<400> 10
agaggatcat atagggtcca cagtt                                         25

<210> 11
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Japanese
      encephalitis virus serogroup Primer 2

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<220>
<221> modified_base
<222> (11)
<223> n = t or absent

<400> 11
yccyastmtw nyycaggtr tcaa                                         24

<210> 12
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:West Nile virus
      Primer 2

<400> 12
ycctagtcta tcccaggtrt caa                                         23

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Japanese
      encephalitis virus Primer 2

<400> 13
cccyastmta tyyccaggtg tcaa                                         24

<210> 14
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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      encephalitis virus Primer 2

<400> 14
tcctagtctt ttcccaggtrg tcaa                                         24

<210> 15
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Example Primer
      2

<400> 15
tcctagtcta tcccaggtrt caa                                         23

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<210> 16
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:region of
      conserved sequence in 3' untranslated region of
      the genomes of flaviviruses

<400> 16
ggactagagg ttagaggaga ccccgcg 28

<210> 17
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complement of
      SEQ ID NO:16

<400> 17
ccgcggggtc tcctctaacc tctagtcc 28

<210> 18
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting flaviviruses

<220>
<221> modified_base
<222> (25)
<223> n = g, c, t, a or absent

<220>
<221> modified_base
<222> (26)
<223> n = c, t, g or absent

<220>
<221> modified_base
<222> (27)
<223> n = g, c, a, t or absent

<220>
<221> modified_base
<222> (28)
<223> n = g, c, a, t or absent

<400> 18
ggwctagwgg ttagaggaga cccynnnn 28

```

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<210> 19
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting Japanese encephalitis virus serogroup
      members

<400> 19
ggactagwgg ttagaggaga ccccrykk
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28


```
<210> 20
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting West Nile virus

<400> 20
ggactagwgg ttagaggaga ccccrcgk
```

28


```
<210> 21
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting Japanese encephalitis virus

<400> 21
ggactagagg ttagaggaga ccccggygg
```

28


```
<210> 22
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting Murray Valley encephalitis virus

<400> 22
ggactagagg ttagaggaga ccccactc
```

28


```
<210> 23
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe for
      detecting Kunjin virus
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<400> 23	
aataaygtgga ttacatgast tcaytgaag	29
<210> 24	
<211> 28	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:probe for	
detecting Dengue virus	
<400> 24	
ggactagagg ttagaggaga ccccyssv	28
<210> 25	
<211> 28	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:probe for	
detecting yellow fever virus	
<400> 25	
ggtctagagg ttagaggaga ccctccag	28
<210> 26	
<211> 28	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:probe for	
detecting Montana myotis leukencephalitis virus	
<400> 26	
ggactagagg ttagaggaga ccccttcc	28
<210> 27	
<211> 28	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:probe for	
detecting Modoc virus	
<400> 27	
ggactagagg ttgagggaga ccccccggc	28
<210> 28	
<211> 28	
<212> DNA	
<213> Artificial Sequence	

<220>
<223> Description of Artificial Sequence:Example Probe 1

<400> 28
ggactagagg ttagaggaga ccccgccg

28

<210> 29
<211> 418
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate BFS1750

<400> 29
ttgccaccgg atgtcaggta aacggtgctg tctgtAACCT ggccccaggt gactgggtta 60
tcaaagccaa tctggccgag tgcaaAGCCC ctcatTCGA ctcgggaggg tccctAGCAC 120
gtaggctgga gaggacgcaa aagttagcacc agaaatGCCA cctgaaAGCA tgctaaAGGT 180
gctgtctgta catgccccag gaggactggg ttaacAAAGC ttaacAGCCC cagcggccca 240
aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgctgcaac 300
ttggcaaggc ccaaACCCGc tcgaagctgt agagacgggg gaaggactag aggttagagg 360
agaccCCTTg ccgttaacgc aaacaacacgC atattgacac ctggaaAGAC aggagatc 418

<210> 30
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate 1750-Std

<400> 30
ttgccaccgg atgtcaggta aacggtgctg tctgtAACCT ggccccaggt gactgggtta 60
tcaaagccaa tctggccgag tgcaaAGCCC ctcatTCGA ctcgggaggg tccctAGCAC 120
gtaggctgga gaggacgcaa aagttagcacc agaaatGCCA cctgaaAGCA tgctaaAGGT 180
gctgtctgta catgccccag gaggactggg ttaacAAAGC ttaacAGCCC cagcggccca 240
aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgCGcaact 300
ttggcaaggc caaACCCGCT cgaagctgta gagacggggg aa 342

<210> 31
<211> 418
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate TD6-4G

<400> 31
ttgccaccgg atgtcaggta aacggtgctg cctgtAACCT ggccccaggt gactgggtta 60
tcaaagccaa tctggccgag tgcaaAGCCC ctcatTCGA ctcgggaggg tccctGGCAC 120
gtaggctgga gaggacgcaa aagttagcacc agaaatGCCA cctgaaAGCA tgctaaAGGT 180
gctgtctgta catgccccag gaggactggg ttaacAAAGC ttaacAGCCC cagcggccca 240

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aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgctgcaac 300
tcggcaaggc ccaaaccgc tcgaagctgt agagatgggg gaaggactag agtttagagg 360
agacccttg ccgttaacgc aaacaacagc atattgacac ctggaaagac aggagatc 418

<210> 32
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
      region of the genome of St. Louis encephalitis
      virus (SLEV) isolate CoaV750

<400> 32
ttgccaccgg atgtcaggta aacggtgctg cctgtAACCT ggccccaggt gactgggtta 60
ccaaagccaa tctggctgag tgcaaAGCCC ctcgttccga ttcccggaggg tccctggcac 120
gtaggctgga gaggacgcaa aagtcatgacc agaaatgcca cctgaaagca tgctaaaggt 180
gctgtctgta catgccccag gaggactggg ttaacaaagc ttaacagccc cagcggccca 240
aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgcgcact 300
tggcaaggcc aaaaccgcgt cgaagctgta gagatgggg aa 342

<210> 33
<211> 418
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
      region of the genome of St. Louis encephalitis
      virus (SLEV) isolate L695121.05

<400> 33
ttgccaccgg atgtcaggta aacggtgctg tctgtAACCT ggccccaggt gactgggtta 60
tcaaagccaa tccggctggg tgcaaAGCCC ctcattccga ctcggggaggg tccctggcat 120
gtaggctgga gaggacgac aagtcatgacc agaaatgcca cctgaaagca tgctaaaggt 180
gctgtctgta catgccccag gaggactggg ttaacaaagc ttaacagccc cagcggccca 240
aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgcgttaac 300
tggcaaggc ccaaaccgc tcgaagctgt agagacgggg gaaggactag agtttagagg 360
agacccttg ccgttaacgc aaacaacagc atattgacac ctggaaagac aggagatc 418

<210> 34
<211> 418
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
      region of the genome of St. Louis encephalitis
      virus (SLEV) isolate TNM771K

<220>
<221> modified_base
<222> (384)
<223> n = g, a, c or t

<400> 34
ttgccaccgg atgtcaggta aacggtgctg tctgtAACCT ggccccaggt gactgggtca 60

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tcaaagccaa tctggctggg tgcaaagccc ctcattccga ctcgggaggg tccctggcac 120
 gtaggctgga gaggacgcac aagtcaagacc agaaatgcca cctgaaaagca tgctaaagg 180
 gctgtctgta catgccccag gaggactggg ttaacaaagc ttaacagccc cagcggccc 240
 aaccatggag agcgtgacca tggcgtaagg actagaggtt agaggagacc ccgctgtaac 300
 ttggcaaggc ccaaaccgc tcgaagctgt agagacgggg gaaggactag agtttagagg 360
 agacccttg ccgttaacgc aaanaacacgc atattgacac ctggaaagac aggagatc 418

<210> 35
 <211> 418
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:3' untranslated
 region of the genome of St. Louis encephalitis
 virus (SLEV) isolate MSI-7

<400> 35
 ttgccaccgg atgtcaggta aacgggtctg tctgtaacct ggccccaggc gactgggtta 60
 tcaaagccaa tccggctggg tgcaaagccc ctcattccga ctcgggaggg tccctggcac 120
 gtaggctgga gaggacgcac aagtcaagacc agaaatgcca cctgaaaagca tgctaaagg 180
 gctgtctgta catgccccag gaggactggg ttaacaaagc ttaacagccc cagcggccc 240
 aaccatggag tgcgtgacca tggcgtaagg actagaggtt agaggagacc ccgctgtaac 300
 ttggcaaggc ccaaaccgc tcuaagctgt agagacgggg gaaggactag agtttagagg 360
 agacccttg ccgttaacgc aaacaacacgc atattgacac ctggaaagac aggagatc 418

<210> 36
 <211> 405
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:3' untranslated
 region of the genome of St. Louis encephalitis
 virus (SLEV) isolate Kern217

<400> 36
 ccggatgtca ggttaaacggt gctgtctgta acctggccccc aggtcactgg gttatcaaag 60
 ccaaccggc tgggtgcaaa gcccctcatt ccgactcggg agggtcctg gcacgttaggc 120
 tggagaggac gcacaagtca gaccagaaat gccacctgaa agcatctaa aggtgctgtc 180
 tgtacatgcc ccaggaggac tgggttaaca aagcttaaca gccccagcgg cccaaaccat 240
 ggagtgcgtg accatggcgt aaggactaga ggttagagga gaccccgctg taacttggca 300
 aggccaaac ccgctcaaag ctgttagagac ggggaaagga ctagaggtt gaggagaccc 360
 cttgccgtt acgcaaacaa cagcatattg acacctggaa agaca 405

<210> 37
 <211> 375
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:3' untranslated
 region of the genome of St. Louis encephalitis
 virus (SLEV) isolate CoaV608

<400> 37
 cccaggcgcac tgggttatca aagccaatcc ggctgggtgc aaagccctc attccgactc 60
 gggagggtcc ctggcacgta ggctggagag gacgcacaag tcagaccaga aatgccacct 120

gaaagcatgc taaaggtgct gtctgtacat gcccaggag gactgggtta acaaagctta 180
acagccccag cggcccaaac catggagtgc gtgaccatgg cgtaaggact agaggttaga 240
ggagaccccg ctgtaacttg gcaaggccca aaccgctca aagctgtaga gacggggaa 300
ggactagagg ttagaggaga ccccttgcgg ttaacgc当地 caacagcata ttgacacctg 360
gaaagacagg agatc 375

<210> 38
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate TBH-28

<400> 38
ttgccaccgg atgtcaggta aacgggtgctg tctgtaacct ggccccaggt gactgggtta 60
tcaaagccaa cccggctggg tgcaaagccc ctcattccga ctcgggaggg tccctggcac 120
gtaggccgga gaggacgcac aagttagcacc agaaatgcca cctgaaagca tgctaaaggt 180
gctgtctgtat catgccccag gaggactggg ttaacaaagc ttaacagccc cagcggccca 240
aaccatggag tgcgtgacca tggcgttaagg actagaggtt agaggagacc ccgctgtat 300
ttggcaaggc ccaaaccgc tcgaagctgt agagacgggg gaaggactag agtttagagg 360
agacccttg ccgttaacgc aaacaacagc atattgacac ctggaaagac a 411

<210> 39
<211> 402
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate VR1265

<400> 39
ccgaaagtca ggttaaacggt gctgtctgtat acctggcccc aggtgactgg gttatcaaag 60
ccaatctggc tgggtgcaaa gcccctcatt ccgactcggtt aggggtccctg gcacgttaggc 120
tggagcggac gcacaagtca gaccagaaat gccacctgaa agcatgctaa agtgctgtc 180
tgtacatgcc ccaggaggac tgggttaaca aagcttaaca gccccagcgg cccaaaccat 240
ggagtgcgtt accatggcgtt aaggactaga ggttagagga gaccccgctg taacttggca 300
aggcccaaacc ccgctcgaaat ctgttagagac gggggaaaggc ctagaggatc gaggagaccc 360
cttgcgtca acgcaaaacaa cagcatattt acacctggaa ag 402

<210> 40
<211> 374
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:3' untranslated
region of the genome of St. Louis encephalitis
virus (SLEV) isolate CoaV353

<400> 40
cccaggtgac tgggttatca aagccaatct agctgagtgc aaagccctc attccgactc 60
gggggggtcc ctggcacgtt ggctggagag gacgcaaaat tcagaccaga aatgccaccc 120
gaaagcatgc taaaggtgct gtctgtacat gcccaggag gactgggtta acaaagctta 180

acagccccag cggcccaaac catggagtgc gtgaccatgg cgtaaggact agaggttaga 240
ggagaccccg ctgcaacttg gcaaggccca aaccgcctcg aagctgtaga gacgggggaa 300
ggactagagg ttagaggaga ccccttgcgg ttaacgcaaa caacagcata ttgacacctg 360
gaaagacagg agat 374

<210> 41
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
consensus upstream primer

<400> 41
gagcccccgtc caaggacgta aaaagaa 27

<210> 42
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
consensus upstream primer

<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA

<400> 42
gagcccccgtc caaggacgta aaaagan 27

<210> 43
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
consensus upstream primer

<220>
<221> modified_base
<222> (26)
<223> n = methyl-dA

<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA

<400> 43
gagcccccgtc caaggacgta aaaagnn 27

```
<210> 44
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      type I upstream primer
```

```
<400> 44
gagcccccgtc caaggacgta aaatgaa
```

27

```
<210> 45
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      type I upstream primer
```

```
<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA
```

```
<400> 45
gagcccccgtc caaggacgta aaatgan
```

27

```
<210> 46
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      type I upstream primer
```

```
<220>
<221> modified_base
<222> (26)
<223> n = methyl-dA
```

```
<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA
```

```
<400> 46
gagcccccgtc caaggacgta aaatgnn
```

27

```
<210> 47
<211> 27
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:Dengue virus
types II and III upstream primer

<400> 47
gagccccgtc caaggacgtt aaaagaa

27

<210> 48
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
types II and III upstream primer

<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA

<400> 48
gagccccgtc caaggacgtt aaaagan

27

<210> 49
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
types II and III upstream primer

<220>
<221> modified_base
<222> (26)
<223> n = methyl-dA

<220>
<221> modified_base
<222> (27)
<223> n = t-butyl-benzyl-dA

<400> 49
gagccccgtc caaggacgtt aaaagnn

27

<210> 50
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
type IV upstream primer

<400> 50
attgaagtca ggccacttgt gcca

24

```
<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      type IV upstream primer

<220>
<221> modified_base
<222> (24)
<223> n = t-butyl-benzyl-dA

<400> 51
attgaagtca ggccacttgt gccn
```

24

```
<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      type IV upstream primer

<220>
<221> modified_base
<222> (23)
<223> n = ethyl-dC

<220>
<221> modified_base
<222> (24)
<223> n = t-butyl-benzyl-dA

<400> 52
attgaagtca ggccacttgt gcnn
```

24

```
<210> 53
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      downstream primer

<400> 53
gatctctggc ctttcccagc gtcaa
```

25

```
<210> 54
<211> 25
<212> DNA
<213> Artificial Sequence
```

```

<220>
<223> Description of Artificial Sequence:Dengue virus
      downstream primer

<220>
<221> modified_base
<222> (25)
<223> n = t-butyl-benzyl-dA

<400> 54
gatctctggc ctttcccagc gtcnn                                         25

<210> 55
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Dengue virus
      downstream primer

<220>
<221> modified_base
<222> (24)
<223> n = methyl-dA

<220>
<221> modified_base
<222> (25)
<223> n = t-butyl-benzyl-dA

<400> 55
gatctctggc ctttcccagc gtcnn                                         25

<210> 56
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus upstream primer

<400> 56
aacccgggata aaaactacgg gtggagaa                                         28

<210> 57
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus upstream primer

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```

<220>
<221> modified_base
<222> (28)
<223> n = t-butyl-benzyl-dA

<400> 57
aacccggata aaaactacgg gtggagan

<210> 58
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus upstream primer

<220>
<221> modified_base
<222> (27)
<223> n = methyl-dA

<220>
<221> modified_base
<222> (28)
<223> n = t-butyl-benzyl-dA

<400> 58
aacccggata aaaactacgg gtggagnn

<210> 59
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus upstream primer

<400> 59
ataaaaaacta cgggtggaga accgga

<210> 60
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus upstream primer

<220>
<221> modified_base
<222> (26)
<223> n = t-butyl-benzyl-dA

<400> 60
ataaaaaacta cgggtggaga accggn

```

28

26

26

```

<210> 61
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus downstream primer

<400> 61
actccggcttccctggcg tcaa                                         24

<210> 62
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus downstream primer

<220>
<221> modified_base
<222> (24)
<223> n = t-butyl-benzyl-dA

<400> 62
actccggcttccctggcg tcan                                         24

<210> 63
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:yellow fever
      virus downstream primer

<220>
<221> modified_base
<222> (23)
<223> n = methyl-dA

<220>
<221> modified_base
<222> (24)
<223> n = t-butyl-benzyl-dA

<400> 63
actccggcttccctggcg tcnn                                         24

<210> 64
<211> 25
<212> DNA
<213> Artificial Sequence

```

<220>
<223> Description of Artificial Sequence:St Louis
encephalitis virus upstream primer

<400> 64
caaagccccct cattccgact cggga

25

<210> 65
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:St Louis
encephalitis virus upstream primer

<220>
<221> modified_base
<222> (25)
<223> n = t-butyl-benzyl-dA

<400> 65
caaagccccct cattccgact cgggn

25

<210> 66
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:St Louis
encephalitis virus upstream primer

<400> 66
tctcctgtct ttccaggtgt caa

23

<210> 67
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:St Louis
encephalitis virus upstream primer

<220>
<221> modified_base
<222> (23)
<223> n = t-butyl-benzyl-dA

<400> 67
tctcctgtct ttccaggtgt can

23

<210> 68
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:St.Louis
encephalitis virus (SLEV) first primer complement

<400> 68
ttgacacctg gaaagacagg aga

23

<210> 69
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:St.Louis
encephalitis virus (SLEV) second primer

<400> 69
caaagccctt cattccgact cggg

24

<210> 70
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:flavivirus
anti-sense probe

<400> 70
gggtctcctc taacctcttag tccttcccc

30

<210> 71
<211> 98
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:region of
conserved sequence in 3' untranslated region of
the genome of flavivirus AF196835

<400> 71
caaccccagg aggactgggt gaacaaagcc gcgaagtgtat ccatgttaagc cctcagaacc 60
gtctcgaaag gaggacccca catgttgtaa cttaaaag 98

<210> 72
<211> 105
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:region of
conserved sequence in 3' untranslated region of
the genome of flavivirus AF196835

<400> 72
tgactgaagc tgttaggtcag gggaaaggact agaggttagt ggagaccccg tgccacaaaa 60
caccacaaca aaacagcata ttgacacctg ggatagacta ggaga 105

<210> 73
<211> 121
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:region of
conserved sequence in 3' untranslated region of
the genome of flavivirus AF196835

<400> 73
cagggcgaaa ggacttagagg ttagaggaga ccccgcggtt taaaagtgcac ggcccagcct 60
gactgaagct gtaggtcagg ggaaggacta gaggttagtg gagacccgt gccacaaaaac 120
a 121

<210> 74
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Example Primer 2

<400> 74
tctcctagtc tatcccggt gtcaa 25